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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BALSIS, SHAY L

ART UNIT

PAPER NUMBER

1744

DATE MAILED: 09/03/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/806,807

Applicant(s)

SWANEPOEL, ADRIAAN RETIEF

Examiner

Shay L Balsis

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6, 7. 6) ☐ Other: _____

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DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant discloses numerous equations with no supporting material as to how these applications were compiled.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-4 are unclear because they all teach equations however the equations are missing essential parentheses. Applicant is asked to add parentheses to the equation in the necessary places to clarify how the equation is to be solved. It is unclear as to how the applicant

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wants the equation to be solved. There are many ways for each equation to be solved and therefore clarification is necessary. Examiner is assuming that the equations should read:

$$W_m = (-8.8889 \times 10^{-5} * E + 0.05378) * (L - 5.25)$$

$$R_w = (-8.8889 \times 10^{-5} * E + 0.05378) - (5.25/L)$$

$$T_m = (0.0007 * L) - (0.0027407 * E + 1.37814)$$

$$R_t = 0.0007 - ((0.0027407 * E + 1.37814)/L)$$

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-6, 8-9 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Merkel et al. “*Merkel*” (DE 19734843).

Merkel teaches a windscreen wiper with an elongate curved backbone made of a flexible spring steel composite material with an elastic modulus of 207 GPa. The backbone has a free form curvature as well as a compound curvature when in use.

After measuring the length, width and thickness on the figures, the calculations were done for each equation. The numbers measured on the figures are used as a ratio to the actual size of the windscreen, therefore the results will be the same. Chart 1 below shows that the actual width and thickness are less than the calculated values. Additionally, the calculated ratio of the width to the length and the calculated ratio of thickness to the length are very similar to the

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actual ratios. There is a small amount of error however, it is acceptable due to inaccuracies on the figures.

Chart 1

Merkel (L=215.9)			
	calculated (mm)		actual (mm)
W	7.453		6.3
Ratio W	0.011		0.029
T	1.79		1.59
Ratio t	0.008		0.0074

6. Claims 1-6, 8-9 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Arman (USPN 4063328).

Arman teaches a windscreen wiper with an elongate curved backbone made of a flexible spring steel composite material with an elastic modulus of 207 GPa. The backbone has a free form curvature as well as a compound curvature when in use.

After measuring the length, width and thickness on the figures, the calculations were done for each equation. The numbers measured on the figures are used as a ratio to the actual size of the windscreen, therefore the results will be the same. Chart 2 below shows that the actual width and thickness are less than the calculated values. Additionally, the calculated ratio of the width to the length and the calculated ratio of thickness to the length are very similar to the actual ratios. There is a small amount of error however, it is acceptable due to inaccuracies on the figures.

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Chart 2

Arman (L=241.3)			
	calculated (mm)		actual (mm)
W	8.35		8.25
Ratio W	0.014		0.034
T	1.77		1.59
Ratio t	0.007		0.0066

7. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Swanepoel (EP 0528643 A1).

Swanepoel teaches a windscreen wiper with an elongate curved backbone made of a flexible spring steel composite material with an elastic modulus of 207 GPa. The backbone has a free form curvature as well as a compound curvature when in use. The backbone has a varying width and thickness along its length.

The length, width and thickness were stated in the specification and with these numbers the calculations were computed. Chart 3 below shows that the actual width and thickness are less than the calculated values. Additionally, the calculated ratio of the width to the length and the calculated ratio of thickness to the length are very similar to the actual ratios. There is a small amount of error however, it is acceptable due to inaccuracies in measuring.

Chart 3

Swanepoel (L=440)			
	calculated (mm)		actual (mm)
W	15.38		11
Ratio W	0.0234		0.025
T	1.64		1.15
Ratio t	0.0037		0.0026

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Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merkel and Arman both in view of Appel (USPN 3192551).

Merkel and Arman teach all the essential elements of the claimed invention however, Merkel teaches a backbone that varies only in width and Arman fails to teach a backbone that varies in width and thickness. Appel teaches a wiper with an elongated curved backbone with a backbone that tapers uniformly in both thickness and width in a straight-line manner from its center to its tips (col. 3, line 36-37). It would have been obvious to have the backbone of Merkel and Arman's wipers vary in thickness and width along its length. Further, one of skill in the art would by routine experimentation find the optimum thickness and width for the backbone. It would have been obvious to one of skill in the art to make the thickness and width of the Merkel and Arman vary to what is desired or required, including as claimed to optimize performance and life of the wiper.

Conclusion


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L Balsis whose telephone number is 703-305-7275. The examiner can normally be reached on 7:30-5:00 M-Th, alternating F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on 703-308-2920. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5665.

Slb
8/26/03


ROBERT J. WARDEN, SR.
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